

**Abstract**

The invention is a system for modifying the VPI/VCIs in ATM cells transferred between two ATM systems on a call-by-call basis. A signaling processor receives signaling for the call and selects a new VPI/VCI for the call. The signaling processor  
5 generates a control message that identifies the old and new VPI/VCIs and transfers the control message to an ATM gateway. The ATM gateway modifies the old VPI/VCI in the ATM cells to the new VPI/VCI.